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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,643	12/30/1999	MICHAEL A. JASSOWSKI	042390.P7143	6610

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09/22/2003

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EXAMINER

CRUZ, LOURDES C

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 09/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/475,643

Applicant(s)

JASSOWSKI, MICHAEL A.

Examiner

Lourdes Cruz

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Miki et al. (US 5892276).

Miki et al. discloses an apparatus comprising (See Fig. on cover):

- A plurality of bond pads 4B configured in an array;
- A first plurality of driver cells 8P located between a nearest (edge closest to pads) die edge than the plurality of bond pads; and a second plurality of driver cells 8n located farther from the nearest edge than the plurality of bond pads
- Bond pads configured in a staggered array

- Pre-driver cells 10GND located farther from the nearest die edge than the second plurality of driver cells, with an inner/outer ring of bond pads (See Fig. on cover)
- Metal connections 9B, each of the metal connections coupling one of the first and second plurality of driver cells to one of the plurality of bond pads
- Conductive interconnects 9, each of the plurality of pre-driver cells coupled to one of the first and second pluralities of driver cells be at least one of the plurality of conductive interconnects
- The plurality of conductive interconnects 9 substantially more narrow in width than the plurality of metal connections

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miki et al.

See that Miki et al. discloses all the structural limitations discussed above. However see that Miki et al. fails to specifically disclose:

- Driver cells with a width of approximately 80 microns

See that:

- The claimed width does not cause any critical or unexpected results to the device's operation. Rather it is merely an obvious design choice determined by routine experimentation. In *Aller*, the court stated "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456 105 USPQ 233,235 (CCPA 1995).

Therefore:

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to incorporate pads of the claimed width in order to provide the device enough interconnecting/bonding area in order to connect the bond pads via bond wires.

Response to Arguments

Applicant's arguments filed 06-10-2003 have been fully considered but they are not persuasive. Applicant argues that:

- The prior art does not disclose the first plurality of driver cells located between a "nearest die edge and the plurality of bond pads" that rather, Miki et al. "clearly discloses that the bond pads 48 are

located at the die edge and the driver cells 8P are located farther away from the die edge than the bond pads 48 (see figure on cover)”

The above arguments are not persuasive because:

See that Applicant arguments seem to be specifically based on the existence of a die. This **puzzles** the examiner since Applicant FAILS to claim a die. In fact, Applicant fails to claim a semiconductor device. Therefore, see that any apparatus with edges and an array of pads will read on the claims as drafted since, even though the specification provides a dictionary for the claims, all claims must be clear and self consistent, and the elements of the claims consistently bound together as to describe a functional apparatus. Applicant does describe an apparatus, but not a functional die nor a semiconductor device.

Applicant does, however, claim an apparatus and a “die edge”.

Additionally, the examiner clearly explains, in the body of the rejection above, the prior art’s clear disclosure of:

- A plurality of bond pads 4B configured in an array;
- A first plurality of driver cells 8P located between a nearest (edge closest to pads) die edge than the plurality of bond pads; and a second plurality of driver cells 8n located farther from the nearest edge than the plurality of bond pads

See that the examiner points out an “edge” closest to the pads.

Moreover, labels, statements of intended use, or functional language such as we have here in "die edge" does not structurally distinguish the claim over the prior art of record which shows a structure that may likewise be labeled, used or function as a "die edge" rather than any other edge. See *In re Pearson* 181 USPQ 641, *Ex parte Minks* 169 USPQ 120, and *In re Swinwhart* 169 USPQ 226.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elle Cruz whose telephone number is 703-306-5691. The examiner can normally be reached on M-F 10-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammand Cuneo can be reached on 703-308-1233. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Elle Cruz
September 15, 2003

Lourdes Cruz
Examiner
Art Unit 2827



EVAN PERT
PRIMARY EXAMINER